

**REMARKS**

Claims 1-11 and 22-29 remain in the present application and have been rejected in the final rejection dated May 2, 2005. For the reasons that follow, withdrawal of the finality of the present rejection and reconsideration and allowance of claims 1-11 and 22-29 remaining in the present application are respectfully requested.

In the Office Action dated May 2, 2005, the Examiner has *finally rejected* claims 1-11 and 22-29 pending in the application on the basis of new ground(s) of rejection and newly cited art. Applicant respectfully requests reconsideration and withdrawal of the finality of the rejection of the Office Action dated May 2, 2005.

A good and sufficient reason why the present response is necessary and was not earlier presented is that an entirely new reference has been cited in the present final rejection dated May 2, 2005 (37 CFR §1.116(c)). The new reference is U.S. Patent No. 6,545,739 to Matsumoto, et al (hereinafter "Matsumoto"), which is for the first time brought to Applicant's attention by means of the present *final rejection* dated May 2, 2005. The new reference, i.e. Matsumoto, was not cited in the present application prior to the instant final rejection.

It is noted that on page 4, paragraph 5 of the Final Office Action, the Examiner has stated that "Applicant's amendment necessitated the new ground(s) of rejection." Applicant respectfully submits that Applicant's previous amendment merely changed the term "structure" to "transistor." However, Matsumoto has been cited by the Examiner to support the Examiner's proposition that a "tunable dielectric layer" as disclosed and claimed in the present application is taught by Matsumoto, while the Examiner acknowledges that the "tunable dielectric layer" was

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not disclosed or suggested by the previously cited reference U.S. Patent No. 5,999,152 to Liao, et al (hereinafter, "Liao"). See Final Office Action of May 2, 2005, page 2, last two lines, and page 3, last three lines of the first paragraph. Applicant submits that the limitation of a "tunable dielectric" was expressly claimed even prior to the Applicant's amendment and, as such, Applicant's amendment (i.e. the change in the term "structure" to "transistor") did not in any way necessitate citation and reliance on Matsumoto - which the Examiner has cited in relation to the "tunable dielectric" limitation that appeared in the original unamended claims.

Since Matsumoto is a reference upon which the Examiner has now relied, Applicant submits that it would be manifestly unfair for the Patent Office not to consider Applicant's arguments which are necessitated due to the newly cited reference, Matsumoto. As such, a good and sufficient reason exists, as required by 37 CFR §1.116(c), for considering Applicant's present response and withdrawing the finality of the present Office Action.

The Examiner has rejected claims 1-11 and 22-29 under 35 USC §103(a) as being unpatentable over Liao in view of Matsumoto. Applicant respectfully submits that pending claims 1-11 and 22-29 are patentably distinguishable over Liao and Matsumoto, either singly or in combination.

Liao is directed to an electro-optic display providing a gray scale by utilizing voltage dependent birefringence. A voltage provided to metal pad "d" in Figure 1 of Liao is controlled through the gate voltage at "c" and the bit line voltage at source "b" of a MOS transistor. Each such MOS transistor and its corresponding metal pad "d" corresponds to a pixel. Based on the voltage provided to metal pad "d," the polarization

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of light passing through liquid crystal molecules “i” in Figure 2 of Liao is controlled such that light can be reflected back to the light source or be reflected to a viewer’s eyes. See Figures 3 and 4 of Liao and column 5, lines 14 to 45 of Liao. Liao is not directed to utilization and control of a tunable interlayer dielectric having a matrix including a tunable material capable of being “tuned to” a UV transparent or opaque state, as disclosed and claimed by the present invention.

Thus, Liao does not disclose or suggest accommodation of erasing stored charges in a gate layer, such as a gate layer of a flash memory transistor, when the matrix comprising tunable material is turned into a UV transparent state. See, for example, Figure 1A and page 11, lines 16-19, discussing step 408 of flow chart 400 in the present application. Nor does Liao disclose or suggest prevention of undesirable charge storage or blocking damage to devices needing protection from UV radiation, when the matrix comprising tunable material is turned into a UV opaque state. See, for example, Figure 1B and page 12, lines 3-6, discussing step 410 of flow chart 400 in the present application. Thus, the claimed invention is patentably distinguishable over Liao.

In the present Final Office Action, the Examiner has acknowledged that Liao “does not explicitly teach that the dielectric is a tunable interlayer dielectric.” The Final Office Action of May 2, 2005, page 2, last two lines. However, the Examiner has newly cited, and relied for the first time on, Matsumoto as overcoming this deficiency of Liao. Applicant submits that Matsumoto also fails to disclose or suggest “a tunable interlayer dielectric formed over said gate layer and said substrate, said tunable interlayer dielectric

comprising a matrix and tunable material situated within said matrix, said tunable interlayer dielectric having a transparent state and an opaque state, said transparent state allowing UV rays to pass through said tunable interlayer dielectric to said gate layer, said opaque state preventing UV rays to pass through said tunable interlayer dielectric to said gate layer,” as disclosed and claimed in the present application.

Matsumoto is directed to a “Fabry-Perot etalon type” tunable wavelength-selective filter having two layers of transparent electrodes and optical mirrors flanking an intermediate layer of material with a refractive index that is variable with electric field, the intermediate is fabricated by dispersing liquid crystal droplets in a light transmissive medium such as a polymer or silica glass, and by adding plasticizer. See, e.g., Figures 1, 2A and 2B of Matsumoto, and column 6, lines 1-67. However, Matsumoto is directed to a filter utilized in wavelength-division multiplexing in optical communications, where different wavelengths of optical pulses traversing through optical fibers need be distinguished. See, e.g., column 1 lines 19-31 and column 2, lines 48-63 of Matsumoto.

As such, Matsumoto is not directed to “a tunable interlayer dielectric formed over said gate layer and said substrate, said tunable interlayer dielectric comprising a matrix and tunable material situated within said matrix, said tunable interlayer dielectric having a transparent state and an opaque state, said transparent state allowing UV rays to pass through said tunable interlayer dielectric to said gate layer, said opaque state preventing UV rays to pass through said tunable interlayer dielectric to said gate layer,” as disclosed and claimed in the present application. In other words, Matsumoto is not directed to use

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of a tunable interlayer dielectric, nor is Matsumoto directed to use of such dielectric to block or pass through UV rays. Moreover, Matsumoto is not directed to use of such dielectric in a transistor to prevent the transistor gate from storing unwanted charges as a result of unwanted UV rays during fabrication. See, for example, Figure 1B and page 12, lines 3-6, discussing step 410 of flow chart 400 in the present application. Further, Matsumoto is not directed to use of such dielectric in a transistor to accommodate the erasing of unwanted process induced charges by employing UV rays. See, for example, Figure 1A and page 11, lines 16-19, discussing step 408 of flow chart 400 in the present application.

As discussed above, Applicant respectfully requests withdrawal of the finality of the present rejection since a new reference, Matsumoto, was cited and relied upon for the first time in the present Final Office Action. In any event, for all the foregoing reasons, Applicant respectfully submits that pending claims 1-11 and 22-29 are patentably distinguishable over Liao and Matsumoto, either singly or in combination. Thus, an early notice of allowance directed to claims 1-11 and 22-29 remaining in the present application is respectfully requested.

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Respectfully Submitted,  
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